

PATENT COOPERATION TREATY



To:

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PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing (day/month/year) 6 October 2005 (06.10.2005)	
Applicant's or agent's file reference P05119WYL	FOR FURTHER ACTION See paragraph 2 below
International application No. PCT/KR 2005/002036	International filing date (day/month/year) 29 June 2005 (29.06.2005)
Priority Date (day/month/year) 6 July 2004 (06.07.2004)	
International Patent Classification (IPC) or both national classification and IPC E04H6/18, B65G1/04	
Applicant LEE WAN YOUNG	

1. This opinion contains indications relating to the following items:

- ☒ Cont. No. I Basis of the opinion
- ☐ Cont. No. II Priority
- ☐ Cont. No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Cont. No. IV Lack of unity of invention
- ☒ Cont. No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Cont. No. VI Certain documents cited
- ☐ Cont. No. VII Certain defects in the international application
- ☐ Cont. No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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Continuation No. I

Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed.

Continuation No. V

Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims 1-20	YES
	Claims ----	NO
Inventive step (IS)	Claims 1-20	YES
	Claims ----	NO
Industrial applicability (IA)	Claims 1-20	YES
	Claims ----	NO

2. Citations and explanations:

The following documents have been cited in the Search Report:

D1: US 6 702 541 B1

D2: JP 5 171833 A

D3: EP 1 108 833 A2

The first document **D1** describes a palletless rack-type parking system with a stacker crane comprises a plurality of racks each having a plurality of parking spaces in a lattice form and arranged on a support surface to be spaced apart from each another at a regular interval. A plurality of storage fork bars each including a first projection tab projected from a predetermined portion of a lower surface thereof to have a predetermined height and horizontally mounted on an upper surface of a first support beam in a regular interval through the first projection tab to cross the support beam in a right angle, at least one end of which is projected longer from the support beam of the rack in a beam form. A transporting fork including a plurality of transporting fork bars each having a second projection tab projected from a predetermined portion of a lower surface thereof to have a predetermined height and a second support beam arranged to cross the storage fork bar in a right angle and for supporting the second projecting tab facing its lower surface. Also a stacker crane installed in each vertical space between two neighboring racks and operable in more than two-axial directions of leftward, rightward, upward and downward with the transporting fork being mounted thereon, thereby enabling the transporting fork to be moved upward or downward

within a minimum allowance that the vehicle is not interfered with transporting fork bars or storage fork bars of the transporting fork.

The document **D2** cited in the Search Report describes a Multi-Stage Parking Apparatus. A getting on/off spot and an inlet/exit are provided on the inlet/exit floors and a plurality of parking chambers are provided in other floors. When driving in, the driver gets off at the getting off spot on the inlet floor and goes out. The roller of a roller conveyor at the getting off spot and the roller of a transfer device are rotated in the normal direction to transfer a car to the side of the inlet. The subsequent cars are transferred onto the unit conveyors by the rollers of unit conveyors. The car is automatically transferred to a vacant parking chamber by a carriage having a lifter and subsequent cars are contained in turn into the parking chambers. When driving out, the car is transferred to the exit by the carriage having a lifter with the reverse manipulation against the driving-in occasion. The car is transferred to the getting-on spot on the delivering floor by the rollers.

In the third document **D3** you can see a process for the automatic parking of vehicles mainly characterised by the fact that it registers the vehicle; the correct positioning of this vehicle; the lifting from the floor of the vehicle; the transport of the vehicle to a transfer station; the transfer of the vehicle by means of the latter to a suitable parking place; and finally the removal from the vehicle from the transfer station to the parking place aimed at.

None of the documents shows a loading and unloading stand of a palletless rack type storage system with a loading fork and a stacker crane and plural rollers arranged in a proper interval in the fork bar.

Therefore the subject matter described in claims 1 to 20 is new and inventive.

Industrially applicability is given doubtlessly for the subject matter with the features described in the claims 1 to 20.